

Abstract

A high power, single lateral mode semiconductor laser has a waveguide with regions of different widths coupled by a tapered region. The laser has a
5 laterally confining optical waveguide having a highly reflecting first end and a second end. The optical waveguide has a first portion extending from the first end and a second portion extending from the second end. The first and second portions are coupled by a tapered waveguide. A width of the first portion is less than a width of the second portion. The first portion filters lateral optical modes
10 higher than a fundamental lateral optical mode. An output is emitted from the second end of the optical waveguide.

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